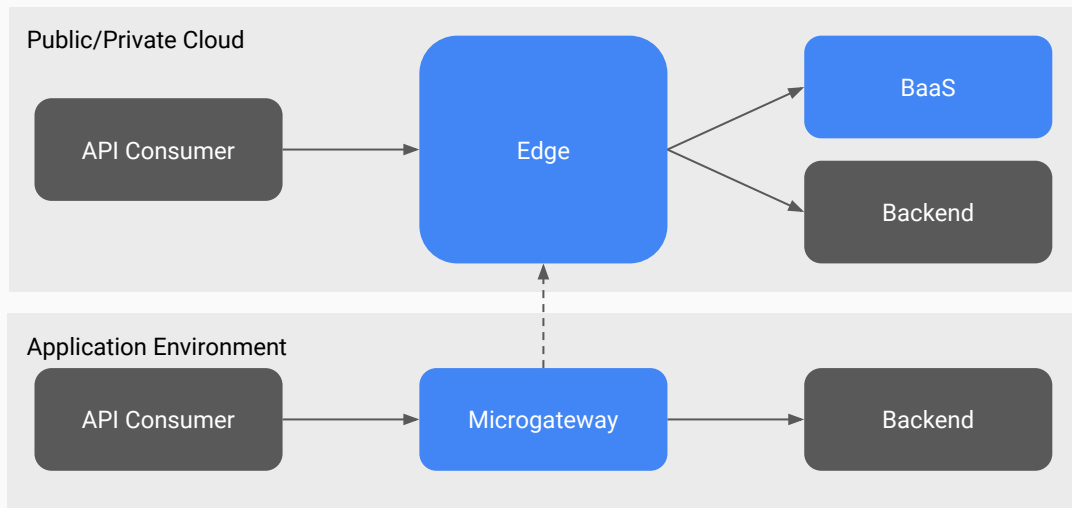Google Cloud

Edge Developers
Specialization Overview - Kurt

Edge Developers Specialization

The Edge Developers Specialization is a collection of hands-on training sessions designed help developers and architects develop the understanding and expertise across all features, utilities and maintenance aspects of Edge.

Target audience

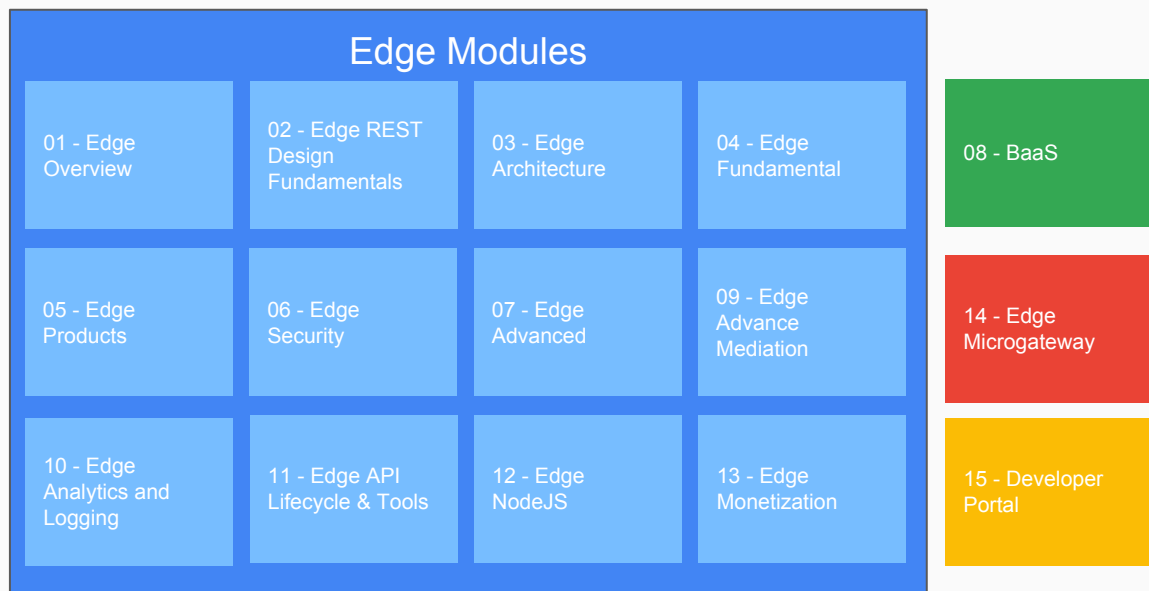Experienced API developers and architects.

Learning experience

- Designing, implementing and deploying APIs in Edge with the out of the box policies and other extensions.

- Covers how to secure, monitor, troubleshoot and manage the APIs in the Edge platform.

- Put their learning into practice with hands on labs and scenarios.

Knowledge Prerequisites

Familiarity with HTTP, REST, JSON, OAuth, cURL command. The course requires that attendees have a laptop equipped with a REST Client (like POSTMAN) and Internet browser.

Modules

Each module covers a comprehensive set of related topics, grouped into units that can be consumed in isolation, one module at a time, or as an entire end-to-end course. Modules are bundled into courses.

Edge Modules

01 - Edge Overview	02 - Edge REST Design Fundamentals	03 - Edge Architecture	04 - Edge Fundamental
05 - Edge Products	06 - Edge Security	07 - Edge Advanced	09 - Edge Advance Mediation
10 - Edge Analytics and Logging	11 - Edge API Lifecycle & Tools	12 - Edge NodeJS	13 - Edge Monetization

08 - BaaS

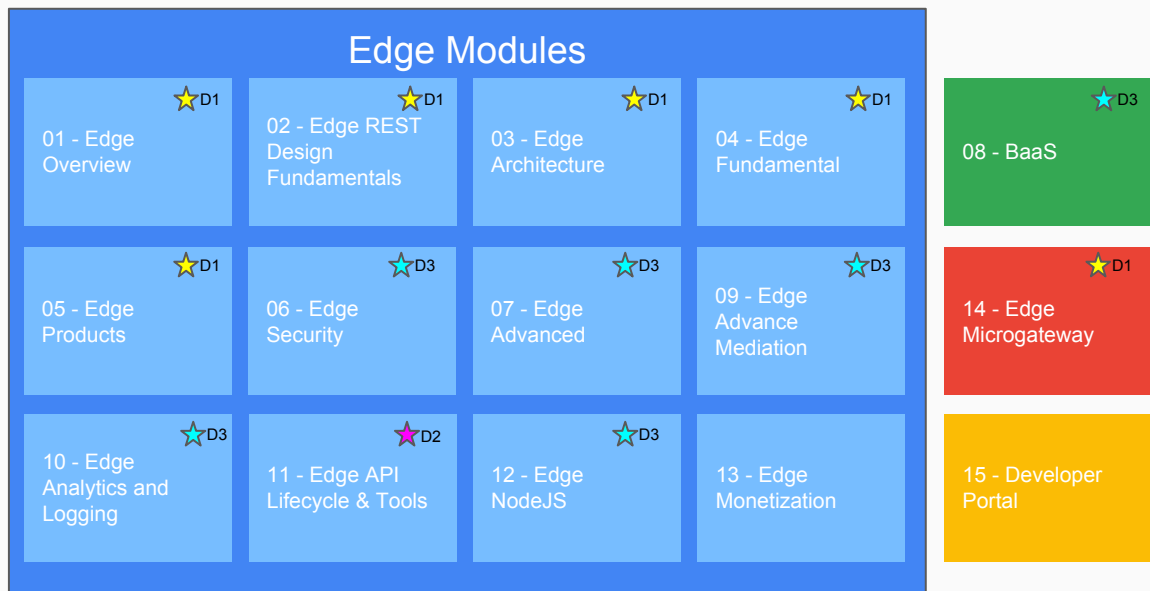14 - Edge Microgateway

15 - Developer Portal

Modules

Each module covers a comprehensive set of related topics, grouped into units that can be consumed in isolation, one module at a time, or as an entire end-to-end course. Modules are bundled into courses.

Edge Modules

⭐ D1 01 - Edge Overview	⭐ D1 02 - Edge REST Design Fundamentals	⭐ D1 03 - Edge Architecture	⭐ D1 04 - Edge Fundamental
⭐ D1 05 - Edge Products	⭐ D3 06 - Edge Security	⭐ D3 07 - Edge Advanced	⭐ D3 09 - Edge Advance Mediation
⭐ D3 10 - Edge Analytics and Logging	⭐ D2 11 - Edge API Lifecycle & Tools	⭐ D3 12 - Edge NodeJS	13 - Edge Monetization

⭐ D3
08 - BaaS

⭐ D1
14 - Edge Microgateway

15 - Developer Portal

Google Cloud

Edge Module Details

01 - Edge Overview ⭐D1
01 - Edge Product Overview
02 - Fund. Concepts and Keywords
03A Lab - Get Setup
03 - Management UI
04 - Roles

02 - Edge REST Design Fund. ⭐D1
01 - Building Blocks of REST
02 - Best Practices in API Design
03 - API Versioning Strategy
04 - Response Codes Pagination

03 - Edge Architecture ⭐D1
01 - Edge Technology stack

04 - Edge Fundamental ⭐D1
01 - What is a Proxy
02 - Anatomy of an Edge Proxy
03 - Conditions and Route Rules
04 - Policy Overview
05 - Debugging using Trace tool
06 - Inro. to OpenAPI Specification
07 - Dealing With Secure Backend
08 - Named Target Servers

08 - BaaS
01 - API BaaS Overview ⭐D3
~~02 - API BaaS Data Model~~
~~03 - API BaaS Query Language~~
~~04 - Geolocation Queries~~

05 - Edge Products ⭐D1
01 - Publishing APIs
02 - Products Developers and Apps
03 - API Product Strategies

06 - Edge Security ⭐D3
01 - Fund. of AuthN and AuthZ
02 - OAuth Introduction
~~03 - OAuth - Client Credentials~~
~~04 - OAuth - Resource Owner Pass.~~
~~05 - OAuth - Authorization Code~~
~~06 - OAuth - Implicit~~
~~07 - OAuth - Miscellaneous~~
~~08 - SAML~~
~~09 - LDAP~~
10 - Protection Against Attacks
11 - Transport Security Consideration
12 - Traffic Mgmt and Rate Limiting

07 - Edge Advanced ⭐D3
01 - Fault Rules and Error Response
02 - Shared Flows _ Flow Hooks

09 - Edge Advance Mediation ⭐D3
01 - Service Callout Mashups
02 - Response Mediation
03 - Advanced Mediation
04 - Extensions
05 - Caching

14 - Edge Microgateway ⭐D1
01 - EM Overview
~~02 - EM Installation and Setup~~
~~03 - EM Security~~
~~04 - EM Default Plugins~~
~~05 - EM Custom Plugins~~
~~06 - EM Logging and Debugging~~
~~07 - EM Monitoring and Upgrades~~
08 - EM TLS

10 - Edge Analytics and Logging ⭐D3
01 - Edge Analytics Services
02 - Edge Logging Services

11 - Edge API Lifecycle & Tools ⭐D2
01 - API Design Doc. with OpenAPI
02 - Branching Strategy
03 - Maven deploy plugin
04 - Maven dependency plugin
05 - Apigeetool
06 - Grunt Deploy plugin
07 - Configurations Management API
08 - Maven config plugin
09 - Testing Mocking
10 - Continuous Integration

12 - Edge NodeJS ⭐D3
01 - Fundamentals of NodeJS
~~02 - NodeJS Integration with Edge~~
~~03 - Packaging and Deployment~~

~~13 - Edge Monetization~~
~~01 - Overview Fundamentals~~
~~02 - Setting up Monetization~~
~~03 - Integration with Developer Portal~~
~~04 - Integration with a Payment Prov.~~

15 - Developer Portal

Edge Module Details + Labs

01 - Edge Overview ⭐D1
01 - Edge Product Overview
01 - Edge Product Overview (AM)
02 - Fund. Concepts and Keywords
01 Lab - Get Setup
03 - Management UI
04 - Roles

02 - Edge REST Design Fund. ⭐D1
01 - Building Blocks of REST
02 - Best Practices in API Design
03 - API Versioning Strategy
04 - Response Codes Pagination

03 - Edge Architecture ⭐D1
01 - Edge Technology stack

04 - Edge Fundamental ⭐D1
01 - What is a Proxy
02 - Anatomy of an Edge Proxy
03 - Conditions and Route Rules
04 - Policy Overview
01 Lab - Your First API
05 - Debugging using Trace tool
06 - Inro. to OpenAPI Specification
07 - Dealing With Secure Backend
02 Lab - Connect Secure Backend
08 - Named Target Servers
03 Lab - Named Target Servers

08 - BaaS ⭐D3
01 - API BaaS Overview
02 - API BaaS Data Model
03 Lab - Getting into BaaS
04 Lab - Connect Edge to BaaS
03 - API BaaS Query Language
04 - Geolocation Queries

05 - Edge Products ⭐D1
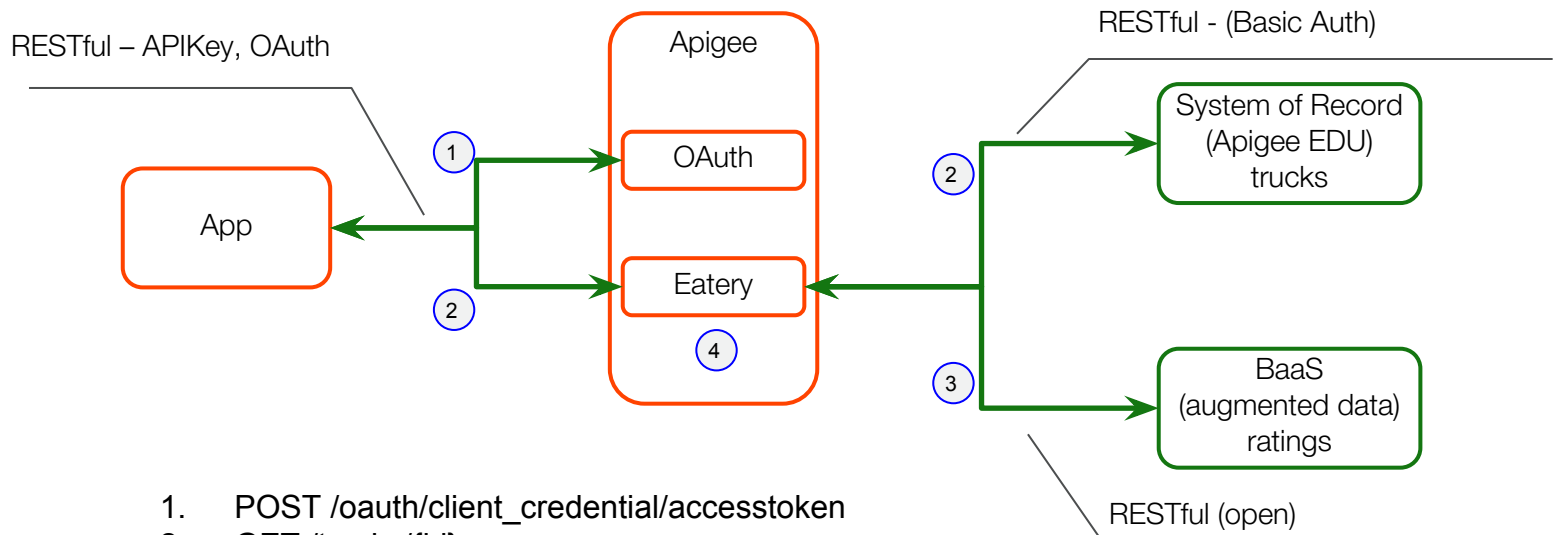01 - Publishing APIs
02 - Products Developers and Apps
03 - API Product Strategies
01 Lab - Your First API Product

06 - Edge Security ⭐D3
01 - Fund. of AuthN and AuthZ
01 Lab - Secure your API
02 - OAuth Introduction
03 - OAuth - Client Credentials
04 - OAuth - Resource Owner Pass.
05 - OAuth - Authorization Code
06 - OAuth - Implicit
07 - OAuth - Miscellaneous
Lab - Using your Access Token
08 - SAML
09 - LDAP
10 - Protection Against Attacks
02 Lab - Threat Protection
11 - Transport Security Consideration
12 - Traffic Mgmt and Rate Limiting
03 Lab - Rate Limiting

07 - Edge Advanced ⭐D3
01 - Fault Rules and Error Response
01 Lab - Fault Handling
02 - Shared Flows - Flow Hooks

09 - Edge Advance Mediation ⭐D3
01 - Service Callout Mashups
Lab - Service Callout
02 - Response Mediation
03 - Advanced Mediation
04 - Extensions
Lab - Mashups and Cleanup
05 - Caching
Lab - Response Caching

14 - Edge Microgateway ⭐D1
01 - EM Overview
02 - EM Installation and Setup
03 - EM Security
04 - EM Default Plugins
05 - EM Custom Plugins
06 - EM Logging and Debugging
07 - EM Monitoring and Upgrades
08 - EM TLS

10 - Edge Analytics and Logging ⭐D3
01 - Edge Analytics Services
➡ Lab - Custom Reports.pptx
02 - Edge Logging Services

11 - Edge API Lifecycle & Tools ⭐D2
01 - API Design Doc. with OpenAPI
02 - Branching Strategy
03 - Maven deploy plugin
04 - Maven dependency plugin
05 - Apigeetool
06 - Grunt Deploy plugin
07 - Configurations Management API
08 - Maven config plugin
09 - Testing Mocking
10 - Continuous Integration

12 - Edge NodeJS ⭐D3
01 - Fundamentals of NodeJS
02 - NodeJS Integration with Edge
03 - Packaging and Deployment

13 - Edge Monetization
01 - Overview Fundamentals
02 - Setting up Monetization
03 - Integration with Developer Portal
04 - Integration with a Payment Prov.

15 - Developer Portal

Google Cloud

Eatery - Lab Overview

RESTful – APIKey, OAuth

Apigee

RESTful - (Basic Auth)

App

OAuth

Eatery

System of Record
(Apigee EDU)
trucks

BaaS
(augmented data)
ratings

RESTful (open)

1. POST /oauth/client_credential/accesstoken
2. GET /trucks/{id}
3. Service Callout GET /ratings?truck={id}
4. Mashup and clean response

apigee

Labs strategy

Modules are intended to be hands-on. One or more labs are conducted as part of them. Labs build up on previous completed activities and they assume some resources are available based on the completion of other labs.

TBD: All the labs will be available in GitHub. By cloning the repo or downloading it using the browser, one can get the lab content. If you want a specific topic to be used, the lab will provide instructions on how to setup and use the lab content.

Official documentation

Edge Management API

http://docs.apigee.com/management/apis

Edge documentation

http://docs.apigee.com

Google Cloud

Questions and feedback

Share your comments and questions regarding this and other modules in the Apigee Community.

We encourage you to visit apigee.com. We have a wealth of resources on Apigee Academy, Apigee Docs, Webcasts, Apigee Community, for you to leverage.

Apigee Documentation
http://docs.apigee.com

Apigee Community
https://community.apigee.com

Apigee Resources
http://apigee.com/about/resources

Apigee Academy
http://academy.apigee.com

Apigee Webcasts
http://apigee.com/about/events/upcoming-webcasts

Apigee Blog
http://apigee.com/about/blog

Apigee Labs
http://apigee.com/about/labs

Apigee Support Portal
http://apigee.com/about/support/portal

THANK YOU